

Serial No.: 10/624,592
Docket No.: 66376-328-7
Amdt. Dated Jan. 31, 05
Reply to Final Office action of Oct. 5, 04



By this Amendment claims 28 and 31-34 have been canceled.

In the outstanding final Office Action the examiner has rejected claim 29 under 35 U.S.C. 102(b) as being anticipated by Fujiyoshi et al. The applicants disagree.

Fujiyoshi et al. disclose a method and apparatus for controlling valve operation in an internal combustion engine. The method comprises the steps of varying the angular phase of the crankshaft and the camshaft to control the timing of the opening of the valve and releasing the force applied by the cam to open the valve while it is being opened to control the timing of the closing of the intake or exhaust valve (see abstract lines 5 to 10). In the apparatus described to Fujiyoshi et al. it is not possible to reopen the lifting valve hydraulically after a mechanical lifting phase performed by the cam has ceased. As can be seen from Fig. 3A, Fig. 3B and Fig. 3C of Fujiyoshi et al., no hydraulic reopening after ceasing of a mechanical lifting can be performed because no hydraulic pressure can be provided to overcome the closing forces in an active manner. According to col. 6, lines 15 to 21, the lift control means has a hydraulic actuator mechanism for opening and closing the intake valve according to the cam profile of the cam, and a hydraulic release valve for cutting off or releasing the operating force of the actuator mechanism to lower the intake valve while the intake valve is being opened. Therefore this hydraulic system is not capable of hydraulic reopening after ceasing of a mechanical lifting cam.

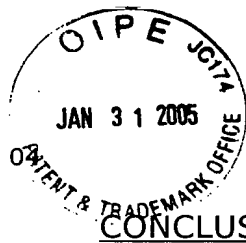
The examiner's assertion that Fujiyoshi et al. discloses the claimed method is simply not true! His rejection of claim 29 based on Fujiyoshi et al. must be withdrawn.

The examiner has rejected claim 30 under 35 U.S.C. 102(b) as being anticipated by Kr ger. This rejection must also be withdrawn.

Kr ger discloses a variable valve train with a central plunger responsive to the action of a main cam and a valve-engaging piston enclosing a pressure chamber. In addition, another pressure chamber surrounding the plunger and within a displaceable cup plunger communicates with a pressure medium line having a control valve. The cup plunger responds to an additional cam having a different lift curve from the main cam. When the control valve is closed, the curve of the additional cam is transmitted to the lift valve by way of both pressure chambers. When the control valve is open, the lift curve of the main cam is transmitted to the lift valve. No hydraulic activated lift is possible. Kr ger does not disclose a variable valve train system which allows full variable valve lifts, but only shift devices to shift between two defined valve lifts. The shift devices being activated with very low working pressure do not enable a hydraulically activated valve lift additionally to a mechanical activated valve lift.

The examiner's prior art rejection against claim 30 should be withdrawn.

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CONCLUSION

It is believed that claims 29 and 30 are allowable.

Respectfully submitted,

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By:

A handwritten signature in black ink, appearing to read "Richard H. Tushin", written over a horizontal line.

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